DOCUMENT RESUME

ED 218 038 RC 013 441

AUTHOR Davenport, Joseph, III; Davenport, Judith Ann
TITLE Simulation-Gaming for Boom Town Human Service Workers.
PUB DATE Jul 81
NOTE 24p.; Paper presented to the National Institute on Social Work in Rural Areas (6th, Beaufort County, SC, July 26-29, 1981).

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Bibliographies; *Educational Games; Higher Education; *Human Services; Instructional Materials; Quality of Life; Role Playing; Rural Areas; *Simulation; *Social Workers; Socioeconomic Influences; *Teaching Methods; *Urban to Rural Migration
IDENTIFIERS *Boomtowns; Energy Development

ABSTRACT

The world energy crisis, contrived or real, has resulted in a dizzying pace of energy resource development, and while no area is completely spared, the brunt of exploitation takes place in rural locales, especially the sparsely-populated, resource-rich American and Canadian West. The most striking manifestation of this exploitation is the boom town, defined as the "rapid and extreme growth of population in communities adjacent to mines and construction sites," or as a "community which is undergoing rapid growth and rapid change." The paper describes the social and human service consequences of rapid energy development, discusses the value of utilizing simulation-games in preparing human service personnel for practice, and details a simulation-game designed specifically for human service workers in energy boom towns. An extensive bibliography is included as an aid to persons seeking additional information on boom town problems and/or simulation-gaming. (Author/AH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED218038

SIMULATION-GAMING FOR BOOM TOWN HUMAN SERVICE WORKERS

by

Joseph Davenport III

Judith Ann Davenport

University of Wyoming

Paper presented to the Sixth National Institute on Social Work in Rural Areas, July 26-29, 1981, Penn Conference Center, Beaufort County, South Carolina

RC 013441

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

SIMULATION-GAMING FOR BOOM TOWN HUMAN SERVICE WORKERS

The world energy crisis, contrived or real,[1] has resulted in a dizzying pace of energy resource development. While no area is completely spared, the brunt of exploitation takes place in rural locales, especially the sparsely-populated, resource-rich American and Canadian West.[2] Daniel Webster once asked:

> What do we want with this worthless area, this region of savages and wild beasts, of shifting sands and whirlwinds of dust, of cactus and prairie dogs? To what use could we ever hope to put these great deserts and these endless mountain ranges?[3]

As Bob Dylan might put it: "The times they are a changing."[24] Or as Time magazine described the situation in a cover story:

> In the dusty Wyoming prairies, where Buffalo Bill Cody ended his pursuit of bison, the black rocker arms of oil wells thump to and fro through the night. In Southern Montana, where the proud Sioux won their great victory, bulldozers scrape away the topsoil of cliffs to reveal vast seams of coal below. In Western New Mexico, where legends tell of the Spanish explorer Coronado searching for the Seven Cities of Cibola, drills sink into the earth in search of uranium. The Mountain States hold vast deposits of the nation's coal, oil and uranium; they are at the heart of any U.S. energy program, and thus of the nation's future.[5]

People who believe that Appalachia possesses the nation's greatest coal reserves are sometimes astounded to learn that the Mountain States hold 50% of the nation's recoverable coal and that Wyoming alone has eight time as much low-

sulfur coal as West Virginia and Kentucky combined![6]

Likewise, people who show concern over the effects of growth created by a nuclear power plant in Mississippi or a hydroelectric project in Tennessee can scarcely comprehend the nature, magnitude and scope of the overwhelming impact being experienced by the West. Wyoming, a state without a single metropolitian area in 1970, and only one in 1980, witnessed a population increase from 300,000 to 480,000 during the last decade. And yet that figure is nothing compared to future projections.

Randall Meyer, President of Exxon U.S.A., recently told a University of Wyoming audience that synthetic fuel development in the Powder River Basin alone might well swell the basin's population to 1,200,000 people in the next two decades.[7] Other projections, which include the booming Overthrust Belt around Evanston, indicate that the Cowboy State will have 4,000,000 inhabitants by the year 2000. Simply stated, Wyoming may well grow from 300,000 people in 1970 to 4,000,000 in the year 2000.

Colorado is another case in point. John Denver's idyllic songs not withstanding, Colorado's mountains are rapidly filling up. If Exxon proceeds with its plans to build 150 oil-shale plants on the Western Slope, the population in Rio Blanco and Garfield Counties could mushroom from 75,000 to 1,500,000. Colorado governor Lamme states: "We are seeing a decade of change every month."[8]

The most striking manisfestation of this change is the boom town, defined by Cortese and Jones as "the rapid and extreme growth of population in communities adjacent to mines and contruction sites,"[9] and by Weisz as "a community which is undergoing rapid growth and rapid change."[10] A working definition developed by the authors posits that it is:

1. a community experiencing above average economic and population growth,
2. which results in benefits for the community (e.g., expanded

tax base, increased employment opportunities, social and cultural diversity),

3. but which also places or results in strain on existing community and societal institutions (e.g., familial, educational, political, economic).[11]

These strains are observed in dramatic increases in social indicators. In fact, psychologist Eldean V. Kohrs found the increases so predictable that he coined the phrase "Gillette Syndrome" to explain the phenomena.[12] Needless to say, not all residents of boom town Gillette appreciated the ensuing notoriety as the media quickly picked up on the phrase.

Some social scientists[13] disputed Kohr's assertions and called for the use of such scientific terms as "energy impacted community" rather than the colorful and descriptive sobriquet of boom town. Other social scientists point out that some of their colleagues who are apparently myopic on boom town problems are frequently the ones receiving lucrative consulting fees from the impacting energy companies and government agencies interested in development of resources.

However, while there is no universal consensus on the exact social and human consequences of energy development, the weight of the evidence seems to support the general thrust of Kohr's "Gillette Syndrome." Countless human service workers have described the increased problems they encounter from their mental health centers, public welfare offices and other such agencies.

In addition to anecdotal evidence, numerous research studies offer statistical corroboration. For example, Craig, Colorado grew 43% from 1973-1976, but experienced the following increases in social indexes: child neglect/abuse-130%, crimes against property-222%, family disturbance-352%, substance abuse-623% and crimes against persons-900%.[14]

Weisz, a community psychologist and former coordinator of the Campbell County Programs for the Northern Wyoming Mental Health Center, studied stress and the mental health-related consequences of energy-related impact in Gillette-Campbell County. The 1977 study showed that:

> the population experienced high levels of stress from the amount of change in their lives, the needs and frustrations produced by deficits in community services, the demands of adjusting to life in a new community, family needs, plus a variety of other stresses stemming from a boom town situation.[15]

Weisz then analyzed the mental health records from 1974-1978 to ascertain if the expected increase in mental health problems occurred. He compared Gillette-Campbell County with four non-impacted counties and found that:

1. the total increase in mental health center admissions in Campbell County was well above the increase that might be predicted from population changes; and
2. the admission figures from the Wyoming State Hospital out of the Northern Wyoming Mental Health Center's other counties, when compared with Campbell County figures, seems to strengthen the hypothesis that highly stressed communities generate more than their share-by-population of severe illness.[16]

However, as pointed out by Marshall and Bougsty, there are limitations to this kind of study.[17] One is that research on caseloads of local mental health centers limits the measurement of problems to those people seeking out treatment. Another is that the measurement of mental health versus ill health is based on subjective, clinical judgement, rather than a standardized test.

Marshall and Bougsty, in order to overcome such limitations, decided to apply the Brief Symptom Inventory, which is a standardized test recommended by

the National Institute of Mental Health. They sampled 217 men and women in a door-to-door survey in impacted Wheatland, Wyoming and found that on both the overall distress score and on all nine symptom scores, residents showed higher rates of psychological/emotional distress than would be expected. Thirty-five percent of the men and 25% of the women were experiencing distress.

A variety of authors have documented and/or described other problems of vulnerable groups in boom towns, including these affecting: women,[18] elderly,[19] children,[20] Native Americans,[21] and newcomers.[22] Other topics covered include health,[23] housing,[24] education,[25] community organizing,[26] religion,[27] politics and policy,[28], natural helping networks,[29] employment,[30] needs assessments,[31] planning,[32] value conflicts,[33] team approaches,[34] and training.[35]

Indeed, the burgeoning literature base now provides a wealth of information for educators and trainers changed with preparing human service personnel for boom communities. Educators and trainers are faced with the task of choosing effective instructional strategies for the conveyance of this information. While their armamentarium of educational approaches varies (e.g., lecture, discussion, audiovisual aids, guest speakers), a growing number of educators and trainers are including simulation-gaming in their repertoire.

According to Twelker and Layden:

> Simulations are simplified reality-the essence of physical or social systems of interaction. Simulations attempt to replicate essential aspects of reality so that reality may be better understood and/or controlled. Reality is replicated to the degree that the simulation designer selects essential elements from reality.

Games are competitive interactions among participants to achieve

> prespecified goals. These interactions may feature cooperation within groups, but competition either among individuals or groups distinguishes gaming. Games are usually played for entertainment and clearly identify winners and losers. Participant success is dependent upon skill or chance or some combination of the two. Games make no attempt to replicate real world behavior-rules of behavior for the game need apply to the game only.[36]

Simulations and games may be combined to form a hybrid refered to as simulation-games.[37] Rockler defines this hybrid thusly:

> A simulation-game can be role play in which players assume specific roles (including those of themselves) to solve a problem or make a decision. It can also be a board game in which players attempt to reach a goal as a result of moving around a board (similar to the kind of activity that takes place in the commercial game, Monopoly). Many of those that are used for educational purposes are combinations of role playing and board activity.[38]

The use of such instructional techniques applies the widely accepted and documented learning principle that learning is facilitated when the learner receives immediate knowledge of results or feedback.[39]

Rockler details additional advantages of simulation-games.

> Simulation-gaming is an important technique to use in the classroom because (1) it aids the socialization process, (2) it can enable human beings to develop strategies for living, (3) it is a future's language that enables players to learn to deal with future more successfully, and... (4) it aids in the development of certain attitudes.

Perhaps most importantly, simulation-gaming can demonstrate the idea of cause and effect more effectively than most other alternatives because it is able to convey gestalt. Understanding cause and effect is necessary in order to participate in social life and in order to understand the world. Yet as teachers we rarely provide students with opportunity to see the results of their own activities. In debriefing sessions students learn how their behavior led to the result that occurred. Many simulation-games allow for replay, and so in another round the student can try another strategy and obtain a different effect. Simulation-games collapse time, and this provides many opportunities for testing the relationship of cause and effect in a relatively short period.

Simulation-gaming is also an activity that provides cloture. The student is made aware of a problem; a simulation-game is played. There is some kind of resolution to the problem, and there is a debriefing. This concludes the experience (although what was learned can be applied to another problem in the future). Compare this to the usual situation in which a student reads a chapter, hears a lecture, takes a test, and goes back to the beginning again. Because there is cloture, the process of understanding the cause-and-effect relationship is facilitated

Simulation-gaming can change the role of the teacher or add to the role in a positive way. The model that many teachers follow is a didactic one in which the teacher serves as judge, selects the winners, and often punishes the losers by

giving them lower grades. In a classroom in which simulation-gaming is being used, the model is more likely to be an heuristic one in which the teacher is no longer the judge; winning and losing becomes a function of the activity allowing the teacher to take on the more pleasant role of being the facilitator of learning. The process can fail if an attempt is made to recast the experience into a more traditional didactic one. (The teacher, for example observes a group planning strategy and in his or her wisdom suggests a more effective strategy for winning).

Simulation-gaming reduces the gap between the successful and less successful student; this is an advantage if the teacher wishes to help the less successful student become more successful. In a simulation-game there is usually an element of chance, and the less successful student may be lucky and win, even though in the contest that is an examination, he must always lose. Sometimes a successful experience may provide a student who has not been successful with a new sense of self-confidence, which may make a difference.[40]

In short, there are compelling reasons why simulation-games are useful in preparing human service personnel for energy impacted environments.

Simulation-Games for Boom Towns

Assuming that educators and/or trainers elect to utilize stimulation-gaming as part of their instructional repertoire they may select a commercial product or design their own. Many general ideas and suggestions may be derived from such authors as Boocock and Schild,[41] Glazier,[42] Inbar

and Stoll,[43] Twelker and Layden,[44] Zuckerman and Horn,[45] and Livingston and Stoll.[46] Material directly relevant to social work and human service personnel has been developed by Meinert,[47] Lauffer,[48] Horejsi[49] Austin,[50] and Austin and Sodec.[51]

Simulation-games designed specifically for boom towns are few and far between. However, Morris and Morris have designed several simulation-games aimed at enabling persons to develop a more holistic perception of the multiple changes which are experienced in rapid growth communities.[52] Their games are also useful in preparing communities for the conflict frequently encountered between different community factions, especially between oldtimers and newcomers.

The authors have developed a game with sufficient flexibility to be utilized with a variety of groups and in a variety of settings. This game, "Gusty, Wyoming," is designed to enhance the ability of participants to prepare for and deal with human service problems in boom towns. It is not aimed specifically at physical and environmental problems; although, these areas may be associated with human service issues. Participants should have at least some exposure (e.g., class instruction, workshop, readings, resident of boom town) to the topic.

Objectives

General objectives of the game include: (1) identifying and predicting the likely human service problems accompanying rapid growth; (2) stimulating dialogue, discussion and debate on possible problems and courses of action; (3) deciding upon priorities; and (4) in line with Reagonomics, focusing increased attention on the role of the private sector in meeting needs.

Objectives may also be tailored for the benefit of specific groups

(e.g., elders, women). Additionally, the game may be used in non-impact classes or workshops and may be useful in reaching other objectives. For example, the authors have employed it in a community organization class and found it helpful in discussing such topics as power and coalition-building.

Equipment

Equipment needs are simple and may be secured with minimum expense. Power points are a part of the game and may take the form of index cards, play money, poker chips, tokens, coins or similar objects. Index cards are needed for the element of chance named "Vagaries and Viscissitudes." These cards or note paper are also used for instructions to the participants representing the energy companies, the foundation and various levels of government. Finally, magic markers and note or poster paper are required to illustrate the possible human service responses to identified problems.

Numbers and Time

Twelve to twenty participants may play with favorable results. However, it is possible to manipulate game components so that 30 to 50 people could participate. The authors believe that interaction is enhanced with smaller groups and suggest that larger groups be divided if space permits. Two hours appear to be the minimum ammount of time required, although, several one-hour periods might suffice if absolutely necessary. In general, persons familiar with role playing, simulations, etc, and/or persons with ample knowledge of boom towns tend to take less time in beginning and completing the exercise.

Rules and Instructions

Participants, who have all had some exposure to boom town material, are given the general objectives of the exercise. They are given a short description of "Gusty, Wyoming," which is a small town of 2,500 about to be impacted by energy development. This community, with few formal services and resources, will soon be a boom town. Participants must assume one of two possible roles - citizens who must prepare for anticipated problems or representitives of the energy companies, government and a private foundation.

Participants assuming the roles of citizens, including human service personnel, are each given 20 power points in the form of chips, index cards, etc. These points are divided into four units worth five points each. Players are told that other power points may be available from the chance element of "Vagaries and Viscissitudes" and from energy companies, government and a foundation. These power points may be retained or applied to establish programs and services in Gusty. They may also be used to block a program felt to be unneeded. This latter course of action is rarely seen.

The establishment of a new or expanded program requires a minimum of 70 points. A fully staffed and funded operation needs 100 points, and a model program must have 120 points. Obviously, no one individual possesses enough points to begin a program. Potential problems must be identified and expressed, differences of opinion and supporting arguments must be aired, conflict must be resolved, priorities must be decided upon and choices must be made.

Choices are selected from a number of possible programs and

services which are outlined on note or poster paper and tacked or taped on the walls. Each piece of paper has the title of an agency or service and an illustrative list of benefits. The authors' basic list of programs includes: Expanded Public Health Program, Expanded Mental Health Program, Expanded Public Welfare Program, Adult Education Center, Recreation Center, Women's Center, Senior Center, Human Services Planning Council, and the Agency.

As an example, the Women's Center would list such possible functions as support groups, services for battered spouses, services for rape victims, educational programs and recreational activities. The Human Services Planning Council features research on human service problems and needs, planning and coordination of human services, eliminating overlap of effort and duplication of service, serving as a central clearinghouse and assisting agencies and organizations with grant writing, program planning, etc. The ? Agency is for those creative persons who do not necessarily view problems from the confines of traditional programs and perspectives. Its functions are intentionally left vague, to wit: program determined by community, services determined by community and personnel determined by community.

Other educators-trainers may modify this list according to their inclinations, objectives and proclivities. As stated earlier, the list may be tailored to specific groups. A workshop for Native Americans might include such possibilities as Expanded Bureau of Indian Affairs (B.I.A.) Program, Expanded Indian Health Service Program, Expanded Tribal Agency or an American Indian Movement (A.I.M.) Center.

Participants begin by moving around the room to examine the possibilities. Then, they tend to start making individual choices based on their perceptions of boom town life. Their next step is to seek persons with similar views or to convince others of the merits of their choice. A certain degree of chaos and confusion may be expected at this point. Interaction and debate may become quite lively and even heated.

There may be enough consensus during this phase to secure sufficient points for a new service. However, opinions generally vary enough so that individuals and groups are still trying to accumulate needed points for their particular program (s). Those people who have joined forces to secure a new service may also be seeking additional points in order that they have a model program.

At this stage, a number of participants will seek assistance from "Vagaries and Viscissitudes." The facilitator is in charge of a game component titled "Vagaries and Viscissitudes." This component may be made of note or poster paper. A stack of index cards rests upon the paper. Each card has a plus or minus 5, 10, 15, or 20 upon it. A person wishing to "gamble" or "take a chance" draws the top card. If, for example, he/she draws +10, then he/she receives 10 power points. Conversely, a person drawing a -15 would forfeit those points. Persons electing to draw a card must possess all of their initial 20 points. In other words, someone cannot give points away and then gamble without the capacity to "pay off" a loss. In general, participants tend to take a chance, and this element adds spice to the game.

A final and major source of power points are the energy companies, government and a foundation. Two or three of these sources may be used with 12 to 15 participants, and additional sources may be utilized as the number of participants increases. A good rule of thumb is that the total amount of power points available should not fund more than half of the possible programs and services. Otherwise, programs may be too easily established with a minimum of interaction and thought.

Participants representing these additional sources are "employed" by Texxon Oil, Goodbody Coal, Playtex Foundation, State Government and Federal Government. Each entity may be represented by one person or several persons. Several persons are recommended if a large group is playing the game. Each organization has 70 power points which may or may not be given to community interests. Representatives must listen to requests for aid, evaluate them and either grant or deny them.

Representatives are given instructions on an index card or piece of paper. For example, the instructions for Texxon Oil and Goodbody Coal state:

> You have 70 power points.
> These should go to further the company's interests.
> They should go to enhance the company's image.
> Points should be used to please the most people and alienate the fewest.
> Points may go to one program, several programs or no programs.

The Playtex Foundation instructions are:

You have 70 power points.

These must promote the general health and welfare of the people.

These should go to groups demonstrating the most need.

Points may go to one program, several programs or no programs.

Finally, the State and Federal Government instructions are:

You have 70 power points.

Points should go to those in most need but they may go toward "quieting down" groups making waves.

Points may go to one program, several programs or no programs.

More detailed instructions may be developed if the situation requires such action.

Participants seeking additional points for their programs may approach these organizations. Their chances of success are enhanced by how well they articulate the social problems their program will address and the rationale for their particular approach or strategy. Considerable discussion may transpire between these parties. A group refused points may decide to sharpen its arguments and return for another encounter. Organization representatives may want to hear several proposals before making a decision.

At the end of the time period, the instructor asks participants what programs have secured enough points to become established. The names of operational programs may be placed on a chalk board or flip chart. While discussion of the game and its results may focus on a variety of factors, several themes generally emerge. The game underscores the fact that there are rarely enough resources in real life to meet all needs and that difficult choices must be made. There is also a tendency to support programs meeting immediate needs as opposed to preventive measures. A social planning emphasis may be minimal with little support for such measures as the Human Services Planning Council.

Since no one individual has enough points to establish a program, contact with others is essential. Analystical and interactional skills are enhanced as arguments are developed to persuade others to contribute their resources. It is evident that effective program development is dependent upon group efforts, coalitions, compromises, bargaining, etc. Such factors are especially important if the game is used in a community organization or social policy class.

The concept of power may be discussed since the acquisition of it results in success in the game. An important point is that power may be derived from interpersonal skills (e.g., ability to persuade), organizational skills (e.g., ability to organize a group), and intellectual skills (e.g., ability to master knowledge of a subject).

A post mortem of the contacts between community interests and organization interests tends to be most interesting. Participants representing the organizations develop a somewhat different perspective on problems. They are able to share what approaches were effective and what were not. Most people completing the game feel they will be better prepared for future contacts with such entities. And in the age of Reagonomics, they become more aware of the potential for assistance from the private sector.

Finally, players have had numerous opportunities to apply their knowledge of boom town problems. They have anticipated likely problems, discussed causative factors and debated a plethora of potential preventive and mitigative strategies.

Summary

In summary, this paper has described the social and human service consequences of rapid energy development; it has discussed the value of utilizing simulation-games in preparing human service personnel for practice; and it has detailed a simulation-game designed specifically for human service workers in energy boom towns. Finally, an extensive bibliography is included as an aid to persons seeking additional information on boom town problems and/or simulation-gaming.

NOTES AND REFERENCES

1. The energy crisis, and solutions to it, are subject to varying interpretations and proposals. See for example, Amory Lovins, Soft Energy Paths: Towards a Durable Peace (Cambridge, Massachusetts: Ballinger Publishing Company, 1977).

2. The eight Mountain States (Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah and Wyoming) are collectively the nation's most thinly settled with 12 inhabitants per square mile versus 62 overall in the U.S.

3. Daniel Webster in James Kelley, "Rocky Mountain High", Time, 116 (December 15, 1981), p. 28.

4. Bob Dylan, "The Times They Are A-Changin'", Writings and Drawings by Bob Dylan (New York: Alfred A. Knopf, Inc. 1973), p. 83.

5. Kelley, op. cit.

6. Ibid, p. 32.

7. Randall Meyer, "Wyoming's Role in the Evolving Synthetic Fuels Industry", presentation at the University of Wyoming, Spring Semester, 1981.

8. Richard Lamm in Kelley, op. cit., p. 37.

9. Charles F. Cortese and Bernie Jones, "The Sociological Analysis of Boom Towns", Western Sociological Review, 8(1977), p. 76.

10. Robert Weisz, "Stress and Mental Health in a Boom Town", in Judith A. Davenport and Joseph Davenport, III (eds.), Boom Towns and Human Services (Laramie, Wyoming: University of Wyoming Department of Social Work, 1979), p. 31.

11. Joseph Davenport, III, and Judith A. Davenport, "Regional and State Institutes: RX for Human Services in Boom Towns", in Joseph Davenport, III, Judith A. Davenport and James R. Wiebler (eds.), Social Work in Rural Areas: Issues and Opportunities (Laramie, Wyoming: University of Wyoming Department of Social Work, 1980), pp. 34-35.

12. Eldean V. Kohrs, "Social Consequences of Boom Growth in Wyoming", a paper presented at the meeting of the Rocky Mountain Association for the Advancement of Science, Laramie, Wyoming, 1974.

13. See, for example, James G. Thompson,"The Gillette Syndrome: A Myth Revisited", Wyoming Issues, 2 (Spring, 1979), pp. 30-35.

14. Alma Lantz, Karen Sackett and Joseph Halpern, "Alcohol-Related Problems in Rapidly Growing Communities", in Joseph Davenport, III, and Judith A. Davenport (eds), The Boom Town: Problems and Promises in the Energy Vortex (Laramie, Wyoming: University of Wyoming Department of Social Work, 1980), p. 72.

15. Weisz, op. cit., pp. 145-146.

16. Ibid.

17. Prudy S. Marshall and Tom Bougsty, "Social/Psychological Problems in an Energy-Impacted Community", in Judith A. Davenport and Joseph Davenport, III (eds.), The Human Side of Energy (Laramie, Wyoming: University of Wyoming Department of Social Work, 1981).

18. See, for example, Elizabeth Moen, "Social Problems in Energy Boom Towns and the Role of Women in Their Prevention of Mitigation", in Davenport and Davenport (eds.), The Boom Town: Problems and Promises in the Energy Vortex, op. cit., pp. 5-20; Elizabeth Moen, Elise Boulding, Jane Lillydahl and Risa Palm, Women and the Social Costs of Economic Development: Two Case Studies (Boulder, Colorado: Westview Press, 1981); Energy Resource Development: Implications for Women and Minorities in the Intermountain West (Washington, D.C.: U.S. Government Printing Office, 1979); and Toward the 80's: Women and Energy (Denver, Colorado: Office of Human Development Services, 1979).

19. See, for example, Sharon S. Larson, "The Elderly: Victims of the Energy Venture", in The Boom Town: Problems and Promises in the Energy Vortex, op. cit., pp. 33-42; Joseph Davenport, III, and Judith A. Davenport, "Boom Towns and the Aged", in Sharon S. Larson (ed.), Energy and Aging (Denver, Colorado: Office of Human Development Services, 1980), pp. 28-35; and Tanya Tanes Ashworth, Senior Citizens Survey of West Garfield County, Colorado and Rapid Energy Growth and the Elderly (West Garfield County: Colorado Mountain College, 1979).

20. See, for example, Cynthia L. Guillaume and Sylvia Ridlen Wenston, "Child Abuse in Impact Communities", in The Boom Town: Problems and Promises in the Energy Vortex, op. cit., pp. 85-98.

21. See, for example, Sylvia A. Robbins, "Native American Experiences with Energy Development", in The Boom Town: Problems and Promises in the Energy Vortex, op. cit., pp. 21-32; Joseph G. Jorgensen, Richard O. Clemmer, Ronald L. Little, Nancy J. Owens and Lynn A. Robbins (eds), Native Americans and Energy Development (Cambridge, Massachusetts: Anthropology Resource Center, 1978); Energy Resource Development: Implications for Women and Minorities in the Inter-Mountain West, op. cit.; Peter Matthiessen, "Journeys to Hopi: National Sacrifice Area", Rocky Mountain Magazine (July/August, 1979), pp. 49-64; and Jerrold E Levey, "Who Benefits from Energy Resource Development: The Special Case of Navajo Indians", The Social Science Journal, 17 (1980), pp. 1-19.

22. See, for example, Garth Massey, Building a Power Plant: Newcomers and Social Impact (Laramie, Wyoming: University of Wyoming, 1978); Kenneth R. Tremblay, Jr., Charles L. Schwartz and Don A. Dillman, "Value Conflict Between Oldtimers and Newcomers", Human Services in the Rural Environment, 6(1981), pp. 11-15; and Joseph Davenport, III, and Judith A. Davenport, "Grits and Other Preventive Measures for Boom Town Bifurcation", Human Services in the Rural Environment, 6 (1981), pp. 3-9.

23. See, for example, Donald A. Kennedy, "Health Care in Boom Towns", in Boom Towns and Human Services, op. cit., pp. 19-30; and Elta M. Kennedy, "Community Nursing in Boom Towns", in The Boom Town: Problems and Promises in the Energy Vortex, op. cit., pp. 99-110.

24. See, for example, Michael Henry Reese and John C. Cummings, "Energy Impacted Housing", in Boom Towns and Human Services, op. cit., pp. 63-78.

25. See, for example, Brad Pietens, "Some Facts of Life About Boom Town Education", in Boom Towns and Human Services, op. cit., pp. 49-62.

26. See, for example, Ronald Jirovec, "Preparing a Boom Town for the Impact of Rapid Growth" in Boom Towns and Human Services, op. cit., pp. 79-90; and Earle Warner, "Grassroots Organizing in Boom Towns", in Boom Towns and Human Services, op. cit., pp. 91-100.

27. See, for example, Arthur L. Waidmann, "The Role of the Church", in Boom Towns and Human Services, pp. 101-114.

28. See, for example, Michael B. Enzi, "The Politics of Human Resources", in Boom Towns and Human Services, pp. 115-126; and Malcolm Wallop, "Energy Impact: A Perspective From the Senate on Federal Causes, Cures and Conflicts", in The Boom Town: Problems and Promises in the Energy Vortex, op. cit., pp. 111-122.

29. See, for example, Frank W. Clark, Jon W. Bertsche and V. Edward Bates, "Informal Helping in a Rural Boom Town", Human Services in the Rural Environment, 5(May/June, 1980), pp. 19-24.

30. See, for Example, Ronald L. Little and Stephen B. Lovejoy, "Energy Development and Local Employment", Social Science Journal, 16 (April, 1979); and Roy T. Bowles, "Preserving the Contributions of Traditional Local Economies", Human Services in the Rural Environment, 6 (1981), pp. 16-21.

31. See, for example, Judith K. Olson, "Needs Assessment and Program Evaluation", in The Boom Town: Problems and Promises in the Energy Vortex, op. cit., pp. 123-138.

32. See, for example, a model for planning described in United States Environmental Protection Agency, "Part I, Managing Growth in the Small Community: Getting a Picture of What's Ahead", "Part 2, Managing Growth in the Small Community: Getting the Community Involved and Organized", and "Part 3, Managing Growth in the Small Community: Community Action and Growth Management", Action Handbook, Region VII Denver, Colorado, 1978, pp. 1-5, 1-104, 1-161.

33. See, for example, Tremblay, et al., op. cit.; and Joseph Davenport, III, and Judith A. Davenport, "Grits and Other Preventive Measures for Boom Town Bifurcation", op. cit.

34. See, for example, Judith A. Davenport and Joseph Davenport, III, "The Wyoming Human Services Project: A Model for Overcoming the Hugger-Mugger of Boom Towns", in Energy Resource Development: Implications for Women and Minorities in the Intermountain West, op. cit., pp. 32-41.

35. See, for example, Lynne Clemmons Morris and Judson Henry Morris, Jr., "Preparing Human Service Workers for Practice in Boom Communities", in The Human Side of Energy, op. cit., pp. 95-108.

36. Paul Twelker and Kent Layden, "A Basic Reference Shelf on Simulation and Gaming" in David Zuckerman and Roger Horn (eds), The Guide to Simulation-Games for Education and Training (Lexington, Massachusetts: Information Resources, 1973), p. 445.

37. Michael J. Rockler, "Applying Simulation-Gaming", in Omer Milton and associates (eds), On College Teaching (San Francisco: Jossey-Bass Publishers, 1980), p. 289.

38. Ibid.

39. Ibid., p. 297.

40. Ibid., pp 292-293.

41. Sarane S. Boocock and E.O. Schild (eds), Simulation Games in Learning (Beverly Hills: Sage Publications, 1968).

42. Raymond Glazier, How to Design Educational Games (Cambridge, Massachusetts: Abt Associates, 1970).

43. Michael Inbar and Clarice Stoll (eds), Simulation and Gaming in Social Science (New York: The Free Press, 1972).

44. Twelker and Layden, op. cit.

45. David Zuckerman and Robert Horn (eds), The Guide to Simulation-Games for Education and Training (Lexington, Massachusetts: Information Resources, 1973)

46. Samuel A. Livingston and Clarice Stasz Stoll, Simulation Games: An Introduction for the Social Studies Teacher (New York: The Free Press, 1973).

47. Roland Meinert, "Simulation Technology, a Potential Tool for Social Work", Journal of Education for Social Work, 8 (Fall 1972), pp. 50-59.

48. Armand Lauffer, "Community Confrontation", "Compacts", and the Rehabilitation Planning Game" (Ann Arbor, Michigan: School of Social Work, University of Michigan).

49. Charles R. Horejsi, "Homemade Simulations: Two Examples from the Social Work Classroom", Journal of Education for Social Work, 13(Winter 1977), pp. 76-82.

50. Michael J. Austin, Management Simulations for Mental Health and Human Services Administration (New York: The Haworth Press, 1978).

51. Michael J. Austin and Beth Sodec, "Students as Management Simulation Designers: Guidelines for Integrating Classroom and Practicum Experiences", Journal of Education for Social Work, 14 (Winter 1978), pp. 3-9.

52. Lynne Clemmons Morris and Judson Henry Morris, Jr., op. cit.